

NOTES ON SOME BUTTERFLIES OF THE NGARA DISTRICT OF TANZANIA WITH A LIST OF THOSE RECORDED

By

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The following notes are based on a small collection made in 1948 and 1949 and vegetational and faunal changes may well have occurred since then. Collecting was undertaken only sporadically and as opportunity offered and achieved a far from complete record of butterflies in the area, Lycaenids and Hesperids in particular being poorly represented. Sufficient species were however taken to give a fair indication of relationships with adjoining areas. A few records are, I think, new to the Tanzania list.

The Ngara district, with an area of 1,045 sq. miles, lies between fifty and eighty miles to the west of the southern end of Lake Victoria. The altitude varies from 4,200 to 6,000 feet a.s.l. and the rainfall, which occurs mainly between October and April, averages about forty inches a year.

The country falls into five main zones:

HIGHLANDS: These lie between 5,500 and 6,000 feet a.s.l., mostly in the form of ridges on a SW/NE axis, outliers to the main body of the Burundi uplands. These ridges are generally open and grass-covered but with patches of stunted thorn and other trees. *Antanartia abyssinica* Fld., *Colias electo* L. and *Pontia helice johnstoni* Crowley occur here. In Bugufi in the north, this zone is heavily populated. Extensive plantations of bananas and coffee intermingled with figs and other trees have given shelter to indigenous vegetation which has been burned off elsewhere. As a result many forest margin species from the next zone are encountered here as well as the usual open country populations.

MIDDLE LEVELS: The greater part of the district lies between 4,500 and 5,500 feet and is covered with trees, more or less thickly distributed, with a strong growth of tall grass, annually burned, below. Small pockets of evergreen forest remain here and there and narrow and discontinuous strips of fringing forest in some of the valleys extend through many parts of this zone. While therefore the population is mainly that of open or sylvan country the denser areas support such forest-margin species as *Tirumala limniace petiverana* Dbl. & Hew., *Amauris n. niavius* L., *Acraea z. zetes* L., *Acraea a. asboloplintha* Karsch, *A. s. sotikensis* E. Shpe., *A. p. perenna* Dbl. & Hew., *A. johnstoni butleri* Aur., *Charaxes c. castor* Cr., *Ch. p. pollux* Cr., *Ch. dilutus* Rths., *Ch. etheocles ochracea* Roths., *Precis natalica* Fld., *Asterope garega* Karsch, *Vannessula milca latifasciata* Tbt., *Pentila p. peuceitia* Hew., *Appias epaphia orbona* Bsd., *Mylothris poppea* Cr., *Nepheronia argia varia* Trim., *Papilio d. dardanus* Brown, *P. phorcas congoanus* Rths., *P. bronius chrapkowskoides* Storace, *P. nireus lyaeus* Dbl., and *Graphium ridleyanus* White.

SWAMPS: Many of the broader valleys in both the above zones contain perennially wet grasslands shading into marsh. Here *Acraea acerata* Hew., *A. ventura* Hew., *Catacroptera cloantho* Cr., *Precis ceryne* Bsd., *Mylothris bernice rubricosta* Mab. *Eurema hapale* Mab. and *Metisella midas* Btl. occur.

LOWLAND FOREST: The deep gorge of the Ruvuvu river cuts through the district at just over 4,000 feet and along its length, and along the lower reaches of some of its tributaries, small stretches of evergreen forest are to be found where plentiful groundwater supplements the rainfall. The greatest extent of forest occurs at the Rusumo Falls in the north-east of the district just below the junction of the Ruvuvu and Kagera rivers. This latter forms part of the northern boundary of the district

and flows through a broad belt of papyrus from which the occasional forested island rises a few feet above the level of the swamp. A very brief visit to this zone produced *Amauris t. tartarea* Mab., *Bematistes quadricolor latifasciata* E. Shpe., *Bematistes p. poggei* Dew., *Acraea e. egina* Cr., *Precis westermanni* West., *Abisara rogersi* Druce and *Papilio zoroastres joiceyi* Gab.

PLAINS: In the south-eastern corner the country falls a few hundred feet, but fairly sharply, to form part of the vast sylvan area which runs south from Lake Victoria through western Tanzania. Among the larger species *Charaxes guderiana* Dew., *Ch. ethalion* Bsd., *Graphium polices* Cr. and *G. antheus* Cr. are typical.

GEOGRAPHICAL DISTRIBUTION

The district forms part of the transitional area between the plains of western Tanzania and the high country which runs north through Burundi and Rwanda to Kabale and the Ruwenzoris in western Uganda. As with the birds¹ affinities are predominantly East African. Some 92 out of 146 species identified from Ngara occur in the same races and forms in Rhodesia.² While 28 of these are fairly ubiquitous Ethiopian species, in the main they are typical of the sylvan area which extends a thousand miles southwards from Lake Victoria.

Of the remaining species one group is found particularly on the northern and western edges of this area, distributed from Angola through Burundi, Rwanda, Uganda, Kenya west of the Rift Valley, and as far as Abyssinia in some instances. Ngara representatives of this group include *Acraea e. egina* Cr., *A. natalica abadima* Ribbe, *A. s. sotikensis* E. Shpe., *A. ventura* Hew., *Charaxes dilutus* Rths., *Precis sophia infracta* Btl., *Bicyclus vulgaris* Btl., *Neocoenya cooksoni* Ham., *Belenois rubrosignata* Weym., *Colotis eucharis evarne* Klug, *C. aurigineus* Btl., *C. hetaera* Gerst., and *Metisella midas* Btl. Of more limited distribution within this area, being largely confined to western Kenya, Uganda and north-western Tanzania are *Bematistes quadricolor latifasciata* E. Shpe., *Acraea a. asboloplintha* Karsch, *Bicyclus saussurei* Drury, *P. bromius chrapkowskoides* Storace, and *P. zoroastres joiceyi* Gab.

West African influences are seen from the following which are found from Senegal to the Congo and Uganda. *Amauris n. niavius* L., *A. t. tartarea* Mab., *Bematistes p. poggei* Dew., *Acraea z. zetes* L., *A. p. perenna* Dbl. & Hew., *A. johnstoni butleri* Aur., *Charaxes c. castor* Cr., *Ch. p. pollux* Cr., *Precis westermanni* West., *Vanessula milca latifasciata* Tbt., *Bicyclus camp* Karsch, *Abisara rogersi* Druce, *Anthea crawshayi* Btl., *Mylothris poppea* Cr., *Belenois theora lortzingi* Suff., *Papilio d. dardanus* Brown, *P. phorcas congoanus* Rths., and *Graphium ridleyanus* White. Again West African, from the Cameroons to Uganda and Abyssinia, are *Asterope garega* Karsch, *Ariande pagenstecheri* Suff., *Precis pelarga* Fab., *Belenois subeida* Feld., *Belenois soliliculus* Btl. and *Leptosia medusa* Cr.

The butterfly population of the more open formations is chiefly that of the southern sylvan zone³ represented by 67 out of 89 species with, for example, *Graphium pylades* represented by the eastern and southern race *angolanus* Goeze rather than by race *pylades* Fab. which occurs in what are comparatively nearby regions of Uganda. Butterflies associated with forests or forest margins show affinities with the western lowland forest zone³, some 32 out of 47. Many of these occur also on Ukerewe Island off the Bukoba shores of Lake Victoria, though *Bematistes p. nelsoni* Sm. & Kby. which occurs there⁴ is replaced by the Congolese race *poggei* Dew. in Ngara. In general the picture seems to be one of a withdrawal of the forests towards the Congo basin with butterflies of the open formations pressing in from the south and east to fill the gap. Meanwhile the western forest species seem likely to have an increasingly precarious future to look forward to, reliant as they are on the tenuous thread of forests along the river valleys.

LIST OF BUTTERFLIES RECORDED IN THE NGARA DISTRICT

DANAIDAE

Danaus chrysippus L., *Tirumala limniace petiverana* Dbl. & Hew., *Amauris n. navius* L., *Amauris t. tartarea* Mab.

ACRAEIDAE

Bematistes quadricolor latifasciata E. Shpe., *B.p. poggei* Dew., *Acraea z. zetes* L., *A. e. egina* Cr. & f. *harrisoni* E. Shpe., *A. natalica abadina* Ribbe, *A. asboloplintha asboloplintha* Karsch, *A. encedon* L., *A. s. sotikensis* E. Shpe., *A. cabira* Hpff. *A. acerata* Hew., *A. eponina* Cr., *A. ventura* Hew., *A. p. perenna* Dbl. & Hew., *A. johnstoni butleri* Aur.

NYMPHALIDAE

Charaxes varanes vologeses Mab., *Ch. caudiope* Gdt., *Ch. c. castor* Cr., *Ch. p. pollux* Cr., *Ch. dilutus* Rths., *Ch. achaeus* Fld., *Ch. guderiana* Dew., *Ch. viola kirki* Btl., *Ch. viola vansonii* van Som. & J., *Ch. etheocles ochracea* Roths., *Ch. ethalion* Bsd., *Crenidomima concordia* Hpff., *Hamanumida daedalus* Fab., *Aterica galene* Brown, *Neptis saclava marpesa* Hpff., *N. jordani* Neave, *N. laeta* Over., *N. lativittata* Over., *N. alta* Over., *Asterope moranti dubiosa* Strd., *A. boisduvali* Wall., *A. garega* Karsch, *Byblia acheloia* Wall., *Ariadne pagenstecheri* Suff., *Neptidopsis ophione vellea* Mab., *Eurytela dryope* Cr., *Hypolimnas misippus* L., *Salamis parhassus aethiops* de Beauv., *Catacroptera cloanth* Cr., *Precis artaxia* Hew., *P. natalica* Fld., *P. terea elgiva* Hew., *P. archesia* Cr., *P. tugela* Trim., *Precis actia* Dist., *P. perlarga* Fab., *P. ceryne* Bsd., *P. antilope* Feist., *P. o. octavia* Cr., *P. sophia infra*ta Btl. & f. *albida* Suff., *P. westernmanni* West., *P. oenone* L., *P. hierta* Fab. *P. orithya madagascariensis* Guen., *Vanessula milca latifasciata* Tbt., *Vanessa cardui* L., *Antanartia abyssinica* Fld., *Phalanta columbina* Cr., *P. phalanitia* Dr.

SATYRIDAE

Melanitis leda Dry., *Gnophodes parneno diversa* Btl., *Bicyclus safitza* West., *B. canipa* Karsch, *B. vulgaris* Btl., *B. angulosus* Btl., *B. saussurei* Dry., *Henotesia perspicua* Trim., *Neocoenyra gregorii* Btl., *N. cooksoni* Hamlyn., *Ypthima asterope* Klug, *Y. impura* Elw. & Edw., *Y. albida* Btl.

RIODINIDAE

Abisara rogersi Druce.

LYCAENIDAE

Ornipholidotos peucetia peucetia Hew., *Lachmonecma bibulus* Fab., *Virachola antalus* Hpff., *Hypolycaena philippus* Fab., *H. buxtoni* Hew., *Spindasis mozambica* Bert., *Axiocerses harpax* Fab., *Authene crawshayi* Btl., *A. definita* Btl., *Syntaracus telicanus* Lang.

PIERIDAE

Appias epaphia orbona Bsd., *Belenois gidica* Gdt., *B. creona* Cr., *B. aurota* Fab., *B. zochalia f. tanganyikae* Lanz, *B. rubrosignata* Weym., *B. subeida* Feld., *B. theora lortzingi* Suff., *B. solitica* Btl., *Dixeia orbona vidua* Btl., *D. pigea* Bsd. & f. *rubrobasalis* Lanz, *Mylothris chloris agathina* Cr., *M. poppea* Cr. f. *tirikensis* Neave, *M. bernice rubricosta* Mab., *Leptosia medusa* Cr., *L. alcaera* Stoll., *Pontia helice johnstoni* Crowley, *Pinacopteryx eriphia* Gdt., *Colotis aurigenus* Btl., *C. hetaera* Gerst., *C. danae* Fab., *C. eucharis evarne* Klug, *C. antevippe* Bsd., *C. evagore autigone* Bsd., *C. eris* Klug, *Eronia cleodora f. erxia* Hew., *E. leda* Bsd., *Nepheronia thalassina* Bsd., *N. argia varia* Trim., *Colias electo* L. & f. *aurivilliusi* Kef., *Catopsilia florella* Fab., *Eurema hecabe* L., *E. brigitta* Cr., *E. hapale* Mab., *E. desjardiusi* Bsd.

PAPILIONIDAE

Papilio d. dardanus Brown, *P. phorcas congoanus* Rths., *P. bromius chrapkowskoides* Storace, *P. nireus lyaeus* Dbl., *P. demodocus* Esper, *P. zoroastres joiceyi* Gab., *Graphium pylades angolanus* Goeze, *G. ridleyanus* White, *G. leonidas* Fab., *G. policenes* Cr., *G. antheus* Cr.,

HESPERIIDAE

Tagiades flesus Fab., *Eretis lugens* Rog., *Abantis zambesiaca* West., *Spialia dromus* Plötz, *Metisella midas* Btl., *M. orientalis* Aur., *Ampittia capenas* Hew., *Kedestes mohozutza* Wall., *Borbo mathias* Fab.

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